

# Luka Ivanković

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## Work Experience

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**Alfatec** - Data Scientist Oct 2025 – Present

- Integrated state-of-the-art technologies into an automated computer vision training pipeline.
- Worked on AI PDF-processing tool for automating workflow and saving time.
- Trained LSTMs and other models for time-series analysis.

**TensorPix** - Full-stack Engineer May 2023 – May 2025

- Engineered and deployed an audio denoising ML model into production.
- Built a video reencoding and compression tool.
- Advanced git with automated testing tools across multiple projects.

**Ericsson Nikola Tesla** - Developer Oct 2022 – Feb 2023

- Radio software development using Java and C++.

## Projects

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- Created a full web app for splitting audio stems with a distributed infrastructure and custom ML models on GCP. Built an audio reencoding tool.
- Fine-tuned embedding models and implemented three variations of a Retrieval-Augmented Generation (RAG) system, conducting comparative analyses of different retrieval methods, ultimately arriving at an agentic AI approach that delivered the best performance chatbot integrated into an existing financial application.
- Developed an online platform for D&D players to upload campaign files, including a Claude-code-inspired AI agent that generates new sessions and assists users in managing their files
- Designed a PDF Reconstructor Agent and PDF Analyzer Agent that collaboratively reconstruct original documents using LaTeX with high fidelity.
- CycleGAN trained on 1,193 Monet paintings for unpaired artistic style transfer.

## Competitions

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- **Lumen Data Science** - Trained CV models to classify musical instruments from spectrograms (90% accuracy).
- Winner of **AI Battlegrounds Hackathon 2023**; participant in Algotrade Hackathon 2024.
- National Competition in Algorithms 2017; 11th place, 2018; 6th place

## Technologies

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Python, PyTorch, Django  
Huggingface, Vllm, Scikit-learn  
JavaScript, TypeScript, Vue.js  
Nuxt.js, GCP, AWS  
Linux, Git, Docker, LangGraph

## Education

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**Faculty of Electrical Engineering and Computing**  
2019 – 2025

**M.Sc. Thesis**  
Emulation of Guitar Effects Using Machine Learning

**B.Sc. Thesis**  
Deep Learning for Symbol Recognition inside Computer Game

## Relevant Coursework

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Artificial Intelligence, Digital Image Processing, Deep Learning (I & II), Neural Networks, Computer Vision, Machine Learning

## Interests

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Guitar (8+ years), Piano  
Street workout, Cycling  
D&D, Catan